

इंटरनेट

मानक

### Disclosure to Promote the Right To Information

Whereas the Parliament of India has set out to provide a practical regime of right to information for citizens to secure access to information under the control of public authorities, in order to promote transparency and accountability in the working of every public authority, and whereas the attached publication of the Bureau of Indian Standards is of particular interest to the public, particularly disadvantaged communities and those engaged in the pursuit of education and knowledge, the attached public safety standard is made available to promote the timely dissemination of this information in an accurate manner to the public.

“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 6996 (1973): Knife, Cartilage [MHD 1: Surgical Instruments]



“ज्ञान से एक नये भारत का निर्माण”

Satyanarayan Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartrhari—Nitiśatakam

“Knowledge is such a treasure which cannot be stolen”



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Indian Standard  
SPECIFICATION FOR  
KNIFE, CARTILAGE

1. Scope — Covers the requirements for cartilage knife.

2. Material

2.1 Carbon Steel — The composition of carbon steel shall be as follows:

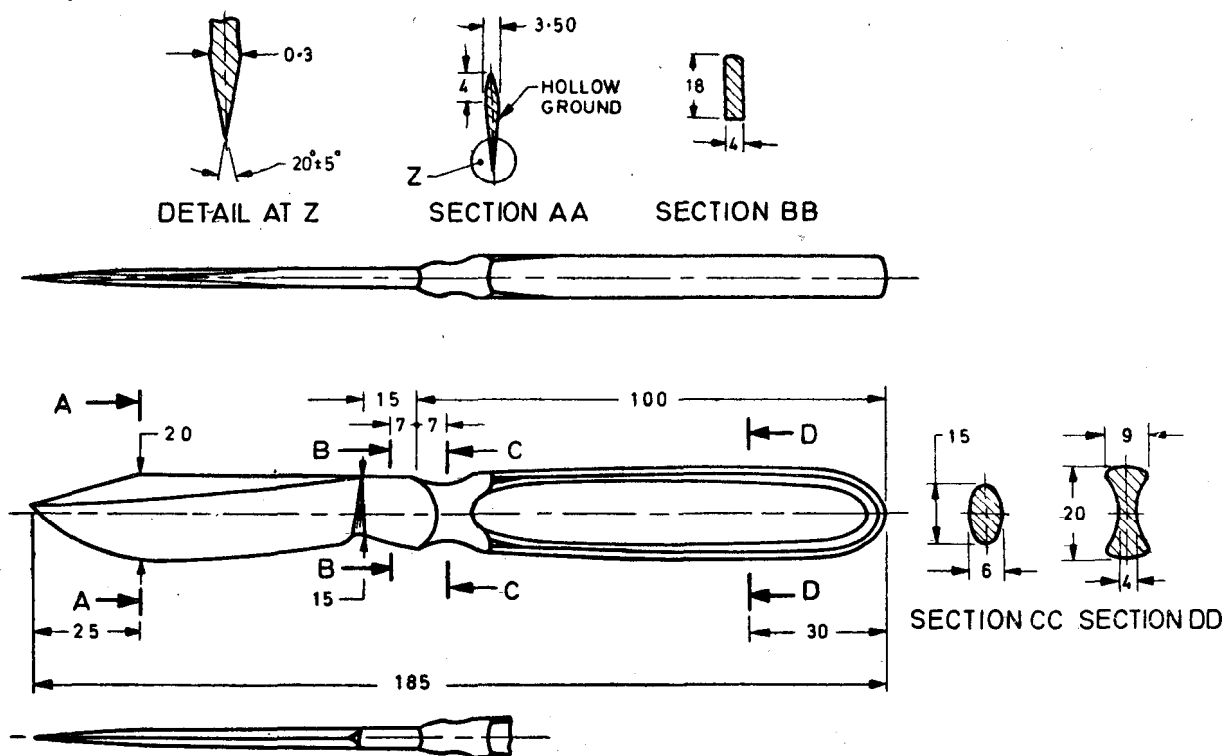
Constituent	Percent
Carbon	1.0 to 1.5
Silicon	0.25 Max
Manganese	0.30 Max
Sulphur	0.030 Max
Phosphorus	0.030 Max

2.2 Stainless Steel — The composition of stainless steel shall be as given in (a) or (b) below:

a) Constituent	Percent
Carbon	0.90 to 1.10
Silicon	0.35 Max
Manganese	0.6 to 0.8
Sulphur	0.03 Max
Phosphorus	0.03 Max
Chromium	12.0 to 14.5
Nickel	0.5 Max

b) Designation 105Cr18Mo50 of Table 1 of IS : 6603-1972 'Specification for stainless steel bars and flats'.

3. Shape and Dimensions — As shown in Fig. 1.



All dimensions in millimetres.

FIG. 1 KNIFE, CARTILAGE

#### 4. Workmanship and Finish

4.1 The knife shall be symmetrical about its central plane and the cutting edge shall lie in the central plane.

4.2 The blade shall be highly polished and free from any blemishes. All edges, other than the cutting edge, shall be rounded. The cutting edge shall be surgically sharp and free from feathers, nicks, high spots, waviness and undulation.

4.3 The handle shall be finished smooth with a matt finish. It shall be free from burrs, pits, sharp or rough edges and other surface flaws.

4.4 The knife made of stainless steel shall be passivated. The knife made of carbon steel shall be plated chromium over nickel and plating shall conform to Service Grade No. 2 of IS : 1068-1968 'Specification for electroplated coatings of nickel and chromium on iron and steel (first revision)'.

5. **Heat Treatment** — The blade of the knife shall be evenly hardened and tempered to a hardness of 650 to 750 HV.

#### 6. Tests

6.1 *View Under Magnification* — Examine the cutting edge under a magnification of 10 X, in two directions along and perpendicular to the plane of the edge. It shall not reveal any feather edge, nick, high spot, waviness or undulation.

6.2 *Performance Test* — Test the knife by cutting a piece of curried leather 5 mm thick with moderate pressure five times. It shall cut easily and cleanly along the entire length of the cutting edge. On completion of the test, the knife shall show no sign of damage when examined in accordance with 6.1.

6.3 *Corrosion Resistance Test* — Scrub the sample with soap and warm water, rinse in hot water and then dip in 95 percent ethyl alcohol. Dry the sample, immerse in copper sulphate solution at room temperature for 6 minutes and wash off with fresh water or swab with wet cotton wool. Make up the solution as follows:

Copper sulphate ( $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$ )	4.0 g
Sulphuric acid ( $\text{H}_2\text{SO}_4$ ) ( sp gr 1.84 )	10.0 g
Distilled water [ see IS : 1070-1960 Specification for water, distilled quality (revised) ]	90.0 ml

There shall be no red stains or spots on the sample, but dulling of the polished surface may be permitted.

7. **Marking** — The knives shall be clearly and indelibly marked with the manufacturer's name, initials or recognized trade-mark. The letters 'SS' shall be marked on knives manufactured from stainless steel.

7.1 *ISI Certification Marking* — Details available with the Indian Standards Institution.

8. **Packing** — The blade of the carbon steel knives shall be coated with a corrosion resisting substance. The knives shall be individually wrapped in moisture-proof paper or put in polyethylene bags, and packed suitably in cardboard cartons so that the cutting edge does not get damaged. The knives may also be packed as agreed to between the purchaser and the supplier.